No. 8900239

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pioneer Hi-Bred International, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT TY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SORGHUM

'PH328'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D.C. *this* 30th *day of* October *in the year of our Lord one thousand nine hundred and* ninety-two.

Attest:

Kenneth W. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madigan
Secretary of Agriculture

APPROVAL EXPIRES 2-28-88

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)
Pioneer Hi-Bred International, Inc.

2. TEMPORARY DESIGNATION

3. VARIETY NAME
PH328

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
Patent Department
7250 N.W.62nd Avenue
Johnston, Iowa 50131

5. PHONE *(Include area code)*
(515) 270-4342

FOR OFFICIAL USE ONLY

PVPO NUMBER
8900239

6. GENUS AND SPECIES NAME
Sorghum bicolor

7. FAMILY NAME *(Botanical)*
Graminae

FILING
DATE
June 6, 1989
TIME
10:00 ☑ A.M. ☐ P.M.

8. KIND NAME
Sorghum

9. DATE OF DETERMINATION
1986

FEES RECEIVED
AMOUNT FOR FILING
$ 2150.00
DATE
May 25, 1989
AMOUNT FOR CERTIFICATE
$ 250.00
DATE
September 14, 1992

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Iowa

12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Mary Helen Mitchell
Patent Department, Pioneer Hi-Bred International, Inc.
7250 N.W. 62nd Avenue
Johnston, Iowa 50131
PHONE *(Include area code)*:

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. ☒ Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety *(Request form from Plant Variety Protection Office.)*
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)*
☐ Yes *(If "Yes," answer items 16 and 17 below)* ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ Yes ☒ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ Foundation ☐ Registered ☐ Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☐ Yes *(If "Yes," give date)*
☒ No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES ?
☐ Yes *(If "Yes," give names of countries and dates)*
☒ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT
Pioneer Hi-Bred International, Inc.
BY: Mary Helen Mitchell
DATE
May 30, 1989

SIGNATURE OF APPLICANT
Michael J. Robb, ASSISTANT SECRETARY
DATE
March 17, 1992

FORM LS-470
(3-86)
Edition of 7-84 obsolete.

1

INSTRUCTIONS

General: Send an original copy of the application and exhibits, at least 2,500 viable seeds *(furnish only untreated seed)*, and $1,800 fee *($200 filing fee and $1,600 examination fee)* to the U. S. Department of Agriculture, Agricultural Marketing Service, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. *(See Section 180.175 of the Regulations and Rules of Practice.)* Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

Item

9 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.

14a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

14b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

14c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

14d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.

14e Section 52(4) of the Plant Variety Protection Act requires applicants to furnish a statement of the basis of the applicant's ownership. The applicant may be the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

15 If "Yes" is specified *(seed of this variety be sold by variety name only as a class of certified seed)* the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "No," he may change his choice. *(See Section 180.16 of the Regulations and Rules of Practice.)*

19 See Sections 41 (i,j) and 42 of the Plant Variety Protection Act and Section 180.7 of the Regulations and Rules of Practice for eligibility requirements.

NOTE: All information submitted in support of an application becomes PUBLIC INFORMATION once the certificate is issued. *(See Section 180.17 of the Regulations and Rules of Practice.)*

8900239

SORGHUM
'PH328'

14A. Exhibit A. Origin and Breeding History

PEDIGREE: PH232/PH252-L)XC3212X

Pioneer proprietary line 'PH328', Sorghum bicolor M., a grain sorghum inbred, was developed by Pioneer Hi-Bred International, Inc., from the F_2 population of the single cross PH232 X PH252. The progenitors of 'PH328' are both proprietary lines of Pioneer Hi-Bred International, Inc. The pedigree method of breeding was used in the development of this inbred as per the following:

The F_1 cross was made at Kingston, Jamaica, W. I., the winter of 1981-82 and F_2 seed was obtained during the winter of 1981-82 in Jamaica, W.I. The F_2 population was grown at Hutchinson, Kansas, in 1982 and selected plants were self pollinated. Thirty-seven heads were saved from the F_2. The F_3's were grown head to row in Jamaica, West Indies, during the winter of 1982-83. These were selfed and two heads were saved. The F_4 family was grown during the summer of 1983 at Hutchinson, Kansas, where two heads were selfed. The F_5 family was grown during the winter of 1983-84 in Jamaica, W.I., where two heads were selfed. In addition, the line was test crossed to an inbred female tester line for evaluation of combining ability. In 1984, the F_6 generation was grown and the line was bulked to best row of two during the summer at Hutchinson, Kansas. Yield tests were also grown at Hutchinson, Kansas, involving test crosses made at F_5. Based on yield test results and nursery observation, the line was selected for advanced testing. It was selected to restore A1 cytoplasm and has superior performance traits specifically for Kansas, Missouri and Nebraska. The line was bulked at F_6 and no further selection within the line was practiced. Additional hybrid combinations were observed in 1985-1988 at Hutchinson, Kansas, and at other Pioneer Research Stations during 1986-1987. The line was confirmed to be true breeding and named 'PH328' in 1986. An outline of the breeding profile of the inbred is attached.

'PH328' has shown stability for traits listed in Exhibit C. It has been self pollinated, bulk increased and checked for uniformity of plant type to assure genetic homozygosity and phenotypic stability. The line has been increased by hand pollination and in isolated field plantings with continued observation for uniformity.

This inbred will have a tall variant that occurs, due to mutation, at a frequency of 24 in 10,000, on the average. This is due to a gene that is unstable for height at the DW_3 locus.

Pioneer Hi-Bred International, Inc., Des Moines, Iowa, is the employer of the plant breeders involved in the selection and development of 'PH328'. Pioneer Hi-Bred International, Inc., has the sole rights and ownership of 'PH328'.

8900239

14A. Exhibit A. Origin and Breeding History of 'PH328'

Sorghum inbred line.

Season/ Year	Inbreeding Level	Nursery Location	Pedigree	Number Of Heads Saved
W/1981-82	F_0	Jamaica, W.I.	F_1 Cross Made	1
W/1981-82	F_1	Jamaica, W.I.	PH232/PH252-L)	Bulk
S/1982	F_2	Hutchinson, KS	PH232/PH252-L)X	37
W/1982-83	F_3	Jamaica, W.I.	PH232/PH252-L)XC3	2
S/1983	F_4	Hutchinson, KS	PH232/PH252-L)XC32	2
W/1983-84	F_5 *	Jamaica, W.I.	PH232/PH252-L)XC321	2
S/1984	F_6	Hutchinson, KS	PH232/PH252-L)XC3212X	Bulk
W/1984-85	F_6X **	Hutchinson, KS	PH232/PH252-L)XC3212X	Bulk

January 1986 - Line Named 'PH328'

1986-1988 - Line increased by hand pollination and in isolated fields for use in hybrid seed production.

* Test crosses made for yield testing

** Line tested in several parental combinations to select hybrids acceptable for sales.

8900239

14B. Amended Exhibit B. Novelty Statement - 'PH328'

'PH328' is most similar to TX3042, a public inbred released from Texas A & M University. Compared to TX3042, 'PH328' is 200 lb/acre lower yielding, has 20% less stalk lodging and 10% less root lodging. 'PH328' is 3 days earlier than TX3042 and 8 inches shorter in height. 'PH328' is similar to TX3042 for head smut and downy mildew and anthracnose infection. TX3042 shows a moderate number of gray leaf spot lesions but no yield loss where as 'PH328' shows more lesions, necrosis and reduced yield. 'PH328' is resistant to biotype C and E greenbugs and TX3042 is susceptible. Both 'PH328' and TX3042 are red seeded inbreds.

Downy mildew - Peronosclerospora sorghi

Anthracnose - Colletotrichum graminicola

Gray leaf spot - Cercospora sorghi

Head smut - Sphacelotheca reiliana

8900239

PLANT VARIETY PROTECTION OFFICE

EXHIBIT C
OBJECTIVE DESCRIPTION FORM FOR SORGHUM
AND RELATED CROPS

VARIETY NAME: PH328

PLANTING: LOCATION: Hutchinson, KS LATITUDE: _____ DATE: Summer 1988

OBSERVATIONS SHOULD BE MADE ON AN APPROPRIATE NUMBER OF WELL SPACED PLANTS (APPROXIMATELY 15 CM SPACING).

1. GENERAL CATEGORIES:

[1] KIND: 1=SORGHUM 2=SORGHUM ALMUM 3=SUDANGRASS 4=JOHNSONGRASS 5=OTHER _____

[3] INBRED TYPE: 1=MALE STERILE 2=MAINTAINER 3=RESTORER

[1] MALE STERILE CYTOPLASM: 1=A-1 2=A-2 3=A-3 4=A-4 5=A-5 6=OTHER _____

[1] USE CLASS: 1=GRAIN 2=FORAGE 3=SILAGE 4=SUGAR 5=SYRUP 6=BROOMCORN 7=MULTIPURPOSE (SPECIFY) _____

2. MATURITY:

[0][6][3] DAYS FROM PLANTING TO MID-ANTHESIS

[0][3] NO. DAYS EARLIER THAN: [1] 1=TX3042 2=WHEATLAND 3=TX2737 4=TX430

[ ][ ] NO. DAYS LATER THAN: [ ] 5=REDLAN 6=OTHER (SPECIFY) _____

3. PLANT:

[2] COLEOPTILE: 1=GREEN 2=RED

[3] PLANT PIGMENT: 1=TAN 2=RED 3=PURPLE

4. STALK:

[2] DIAMETER (MAIN STALK): 1=SLIM 2=MID-STOUT 3=STOUT

HEIGHT:

[ ][8][7] CM FROM SOIL LEVEL TO TOP OF PANICLE

[1][0] CM LESS THAN [2] 1=TX3042 2=WHEATLAND 3=TX2737 4=TX430

[ ][ ] CM GREATER THAN [ ] 5=REDLAN 6=OTHER (SPECIFY) _____

[3] NO. OF RECESSIVE HEIGHT GENES

PLANT HEIGHT GENOTYPE (MARK ONLY RECESSIVE): [ ] dw1 [ ] dw2 [ ] dw3 [ ] dw4

[1] WAXY BLOOM: 1=PRESENT 2=ABSENT

[2] TILLERS: 1=FEW 2=MODERATE 3=MANY

[1] SWEETNESS: 1=SWEET 2=INSIPID

[2] JUICINESS: 1=DRY (PITHY) 2=JUICY

[2] PANICLE EXSERTION: 1=SHORT 2=MEDIUM 3=LONG

5. LEAF: (FIRST LEAF BELOW FLAG LEAF)

[2] WIDTH (RELATIVE TO CLASS): 1=NARROW 2=MODERATE 3=WIDE

[2] COLOR: 1=LIGHT GREEN 2=DARK GREEN

[1] MARGIN: 1=SMOOTH 2=WAVY

[2] ATTITUDE: 1=ERECT 2=HORIZONTAL 3=DROOPING

[1] LIGULE: 1=PRESENT 2=ABSENT

[1] MIDRIB COLOR: 1=WHITE 2=INTERMEDIATE 3=CLOUDY 4=YELLOW 5=BROWN

REVISION: JANUARY 9, 1989

6. PANICLE:

[2] ANTHER COLOR (AT FLOWERING): 1=WHITE 2=LIGHT YELLOW 3=DARK YELLOW 4=WINE

[2][5] CM PANICLE LENGTH

[ ][5] CM LESS THAN: [1] 1=TX3042 2=WHEATLAND 3=TX2737 4=TX430

[ ][4] CM GREATER THAN: [5] 5=REDLAN 6=OTHER (SPECIFY) _____

[2] DENSITY: 1=OPEN 2=SEMI-OPEN 3=SEMI-COMPACT 4=COMPACT

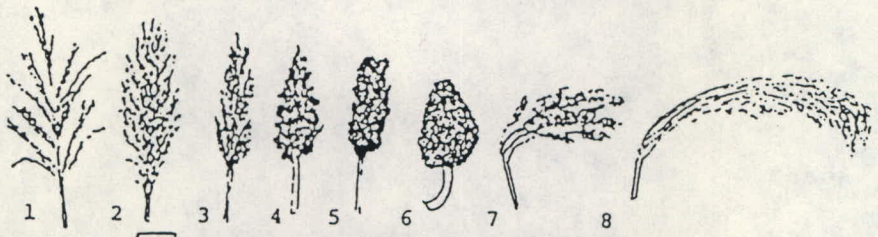
[2] SHAPE: 1=ROUND 2=OVAL 3=CYLINDRICAL 4=CONICAL 5=OBOVATE

[4] LENGTH OF CENTRAL RACHIS (% OF PANICLE LENGTH): 1=100 2=75 3=50 4=25

[1] RACHIS BRANCHES (AT GRAIN MATY.): 1=ERECT 2=HORIZONTAL 3=DROOPING

[3] RACHIS BRANCH AVERAGE LENGTH: 1=SHORT 2=INTERMEDIATE 3=LONG

[2] PANICLE TYPE: (SELECT NUMBER FROM DIAGRAM BELOW)



GLUMES:

[2] LENGTH: 1=SHORT 2=INTERMEDIATE 3=LONG

[1] % OF GRAIN COVERED BY GLUME: 1=25% 2=50% 3=75% 4=100% 5=OVER 100%

[2] TEXTURE: 1=PAPERY 2=INTERMEDIATE 3=TOUGH

[2] COLOR (AT GRAIN MATY.): 1=BLACK 2=MAHOGANY 3=RED 4=SIENNA 5=DARK TAN 6=LIGHT TAN

[3] HAIRINESS: 1=SMOOTH 2=INTERMEDIATE 3=HAIRY

[2] VEINATION: 1=PRESENT 2=ABSENT

[2] TRANSVERSE WRINKLE: 1=PRESENT 2=ABSENT

[3] AWNS: 1=ABSENT 2=SHORT 3=INTERMEDIATE 4=LONG

7. ROOTS:

[1] 1=FIBROUS 2=RHIZOMATOUS

8. GRAIN:

[1] TESTA: 1=ABSENT 2=PRESENT

[ ] TESTA COLOR: 1=BROWN 2=PURPLE

[2] MESOCARP THICKNESS: 1=THIN 2=INTERMEDIATE 3=THICK

[3] EPICARP COLOR (GENETIC): 1=WHITE 2=LEMON YELLOW 3=RED

[1] SPREADER (TANNIN IN PERICARP): 1=ABSENT 2=PRESENT

[1] INTENSIFIER: 1=ABSENT 2=PRESENT

[ ][5] GRAIN COLOR (APPEARANCE): 1=WHITE PEARLY 2=WHITE CHALKY (OPAQUE) 3=YELLOW 4=LEMON YELLOW 5=LIGHT RED 6=DARK RED 7=LIGHT BROWN 8=REDDISH BROWN 9=DARK BROWN 10=PURPLE 12=OTHER _____

[1] ENDOSPERM COLOR: 1=WHITE 2=YELLOW

[1] ENDOSPERM TYPE: 1=STARCHY 2=WAXY 3=SUGARY

[2] ENDOSPERM TEXTURE: 1=FLOURY 2=INTERMEDIATE 3=CORNEOUS

[2] SEED SHAPE: 1=ROUND 2=OVAL 3=OVATE 4=TURTLEBACK 5=FLAT 6=WEDGE 7=OTHER: _____

[3][5][0][0] # OF SEED PER 100 G

GENOTYPE (IF KNOWN): R, Y, I, Z, B1, B2, S, Tp, Wx, Fl

(DEFINE) _____

9. DISEASE RESISTANCE: (1=SUSCEPTIBLE 2=INTERMEDIATE 3=RESISTANT)
BACTERIAL STRIPE, CHARCOAL ROT, MAIZE DWARF MOSAIC VIRUS, PUCCINIA (RUST), BACTERIAL STREAK, BACTERIAL SPOT, ANTHRACNOSE, HEAD SMUT, SOOTY STRIPE, DOWNY MILDEW, GRAIN MOLD, FUSARIUM STALK ROT OR OTHERS.

REACTION	DISEASE	CAUSAL AGENT	RACE OR PATHOTYPE
2	Charcoal Rot	M. phaseoli	
2	Fusarium Rot	Fusarium spp.	
2	Head Smut	S. reliana	4
1	MDM		JG strain
1	Downy Mildew	P. sorghi	1
1	Downy Mildew	P. sorghi	3
2	Anthracnose	C. graminicola	
3	Bacterial Leaf Disease		
1	Zonate	G. sorghi	
2	Gray Leaf Spot	C. sorghi	

10. INSECT RESISTANCE: (1=SUSCEPTIBLE 2=INTERMEDIATE 3=RESISTANT)
SORGHUM MIDGE, CHINCH BUG, GREENBUG OR OTHERS

REACTION	INSECT	BIOTYPE
3	Greenbug	C & E
1	Sorghum Midge	
1	Chinchbug	

11. OTHER DISTINGUISHING TRAITS:

8900239

14D. Exhibit D. Additional Description of 'PH328'

'PH328' is a grain sorghum, Sorghum bicolor M., inbred

As an inbred per se, 'PH328' is similar to TX3042, a public inbred released from Texas A & M University, in a number of plant characteristics. Both inbreds have dark green leaves, about the same mid-bloom date, purple plant pigment, similar stalk and height measurements, similar leaf length and width, yellow anthers, no subcoat in the testa and corneous endosperm. However, there are some distinguishable differences between 'PH328' and TX3042 as stated in Exhibit B. In addition to these differences, 'PH328' is resistant to greenbug biotypes C and E and TX3042 is susceptible to both biotypes. 'PH328' is a restorer of A1 cytoplasm and TX3042 is not.

8900239

14D. Amended Exhibit D. Comparison of 'PH328' and TX3042. Values shown are actual measurements, percentages, percent of mean and scores. Disease ratings are scores (rated 1-9 with 9 best) based on relative disease damage in special nurseries as described at the bottom of the table.

TRAIT MEASURED	'PH328'	TX3042	DIFF	MEAN
Yield (lbs/acre)	2700	2900	200	
Percent Moisture	13	13	0	
Test Weight (lbs/bu)	57	57	0	
Head Exsertion (% of mean)	95	102	7	3 in.
Head Type Score(% of mean)	114	101	13	5 (1 tight,9 open)
Percent Stalk Lodging	0	20	20	
Percent Root Lodging	0	10	10	
Plant Height (inches)	34	42	8	
Days to Flower	63	66	3	
Days to Color	90	92	2	
Gray Leaf Spot Score	3	5	2	(numerous lesions with yield loss vs. no yield loss)
Head Smut Score	7	7	0	
Downy Mildew Score	2	2	0	
Anthracnose Score	5	4	1	

Gray Leaf Spot & Leaf Rust	9 = Few lesions (less than 10% tissue damage) - healthy plant 5 = Moderate number of lesions - slight necrosis - little or no affect on yield 1 = Numerous lesions - extensive necrosis leaf and plant death
Head Smut Score	9 = 0-1% infected plants 5 = 10-12% infected plants 1 = 20% or more infected plants
Downy Mildew Score	9 = 0-1% infected plants 5 = 15-20% infected plants 1 = 30-50% or more infected plants
Head Fusarium Score	9 = 0-1% infected plants 5 = 20-25% infected plants 1 = 50% or more infected plants

14D. Exhibit D. Additional Description of 'PH328'

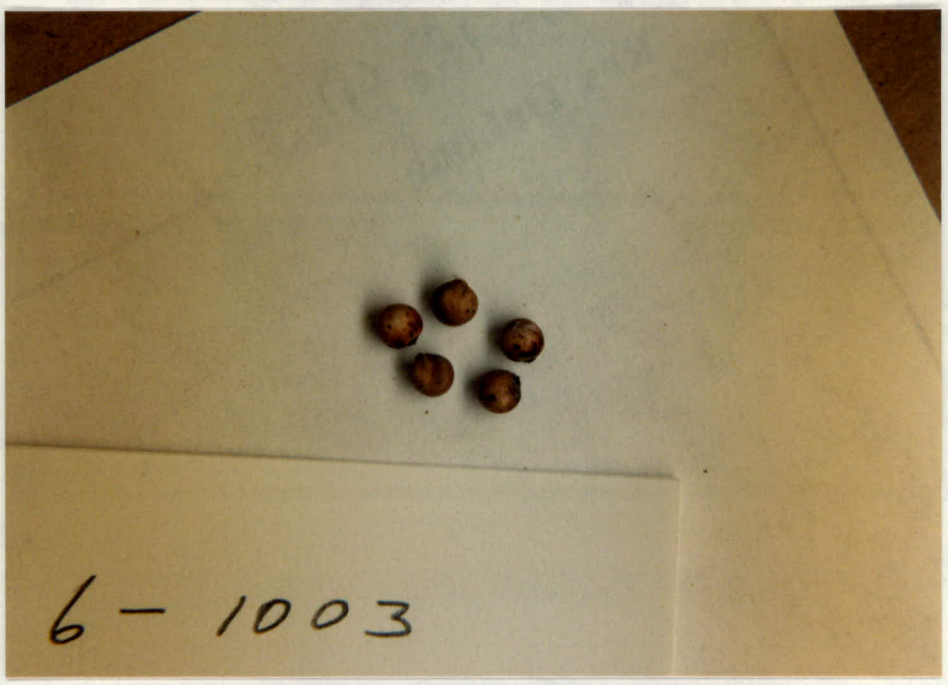
a. Whole plant

14D. Exhibit D. Additional Description of 'PH328'

b. Head

14D. Exhibit D. Additional Description of 'PH328'

c. Seed



14E. Exhibit E. Statement of the Basis of Applicant's Ownership

Pioneer Hi-Bred International, Inc., Des Moines, Iowa, is the employer of the plant breeders involved in the selection and development of 'PH328'. Pioneer Hi-Bred International, Inc., has the sole rights and ownership of 'PH328'.